

CLAIMS:

1. A system for decoupling a capacitive path from an IO pad and a protected component, comprising:

a protected component;

5 an IO pad coupled to the protected component;

a source of current to the IO pad;

a first circuit which ceases to conduct after being exposed to a current;

10 a second circuit able to cause the first circuit to cease conducting in response to variations in voltage or current; and

a capacitive path that is decoupled from the IO pad and protected component when the first circuit ceases to conduct.

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2. The system of Claim 1, wherein the protected component comprises a processor.

3. The system of Claim 1, wherein the first circuit 20 comprises a fuse.

4. The system of Claim 1, wherein the second circuit comprises a fuse blow pad.

25 5. The system of Claim 1, wherein:

the second circuit comprises a control signal input; and

the second circuit shorts to ground upon receipt of a control signal.

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6. The system of Claim 1, wherein the second circuit comprises a field-effect transistor.

7. The system of Claim 1, wherein the capacitive path comprises:

a node coupled to the first circuit;

5 a first diode, the anode of which is coupled to the node; and

a second diode, the cathode of which is coupled to the node.

8. The system of Claim 7, wherein the voltage coupled  
10 to the cathode of the first diode is a voltage other than a ground voltage.

9. The system of Claim 7, wherein the voltage coupled to the anode of the second diode is a ground voltage.

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10. The system of Claim 7, wherein:

a first voltage is coupled to the IO pad;

a second voltage is coupled to the second circuit; and

20 the difference between the first voltage and the second voltage is less than the activation voltage of the first diode or the second diode.

11. The System of Claim 7, wherein:

the second circuit has a control signal input;

25 the second circuit shorts to ground upon receipt of a control signal;

a voltage is coupled to the IO pad; and

the difference between the voltage coupled to the IO pad and the ground voltage is less than the activation 30 voltage of the first diode or the second diode.

12. The system of Claim 11, wherein a plurality of fuse blow control devices are connected to the same fuse blow control signal input.

5        13. A system for decoupling a capacitive path from an IO pad and a protected component comprising:

          a protected component;

          an IO pad coupled to the protected component;

          a source of current to the IO pad;

10        a first circuit which ceases to conduct when exposed to a current;

          a second circuit which ceases to conduct when exposed to a current;

15        a third circuit able to cause the first circuit to cease conducting in response to variations in voltage;

          a fourth circuit able to cause the second circuit to cease conducting in response to variations in voltage; and

          a capacitive path that is decoupled from the IO pad and protected component when the first and second circuits cease 20 conducting.

14. The System of Claim 13, wherein the capacitive path comprises a diode pair, further comprising:

          a first node;

25        a first diode, the anode of which is coupled to the first node;

          a second diode, the cathode of which is coupled to the first node;

          a second node coupled to the cathode of the first 30 diode; and

          a third node coupled to the anode of the second diode.

15. The System of Claim 13, wherein the third circuit comprises a fuse blow pad.

16. The System of Claim 13, wherein the fourth circuit  
5 comprises a fuse blow pad.

17. The System of Claim 13, wherein the first circuit comprises a fuse.

10 18. The System of Claim 13, wherein the second circuit comprises a fuse.

19. The System of Claim 13, wherein a voltage is coupled to the third circuit.

15 20. The System of Claim 13, wherein the voltage coupled to the fourth circuit is a voltage other than ground.

20 21. The System of Claim 13, wherein a voltage is coupled to the first circuit.

22. The System of Claim 13, wherein the voltage coupled to the second circuit is ground.

25 23. The system of Claim 13, wherein:  
a first voltage is coupled to first circuit;  
a second voltage is coupled to the second circuit;  
a third voltage is coupled to the third circuit;  
30 a fourth voltage is coupled to the fourth circuit;  
the difference of the first voltage and the third voltage causes the first circuit to cease conducting; and

the difference of the second voltage and the fourth voltage causes the second circuit to cease conducting.

24. The system of Claim 13, further comprising:  
5 a plurality of capacitive paths, IO pads, and protected elements, in which:

a capacitive path is coupled to an IO pad and protected element;

each capacitive path is coupled to the first circuit;  
10 each capacitive path is coupled to the second circuit;  
each capacitive path is coupled to the third circuit;  
and

each capacitive path is coupled to the fourth circuit.

15 25. The system of Claim 24, in which:  
a capacitive path comprises a diode pair;  
the first node of a diode pair is coupled to an IO pad  
and a processor;  
the second node of each diode pair is coupled to the  
20 first circuit;  
the second node of each diode pair is coupled to the  
third circuit;  
the third node of each diode pair is coupled to the  
second circuit; and  
25 the third node of each diode pair is coupled to the  
fourth circuit.

26. A method for decoupling a capacitive path from an  
IO pad and a protected component, comprising:

30 applying a first voltage to an IO pad of a protected  
component;  
generating a current between the IO pad and a control  
device; and

separating the IO pad and protected component from a capacitive path as a function of the current between the IO pad and the control device.

5        27. A computer program product for decoupling a capacitive path from an IO pad and a protected component, the computer program product having a medium with a computer program embodied thereon, the computer program comprising:

10      computer code for applying a first voltage to an IO pad of a protected component;

computer code for generating a current between the IO pad and a control device; and

15      computer code for separating the IO pad from a capacitive path as a function of the current between the IO pad and the control device.

28. A processor product for decoupling a capacitive path from an IO pad and a protected component, the product having a medium with a computer program embodied thereon, the computer program comprising:

computer code for applying a first voltage to an IO pad of a protected component;

computer code for generating a current between the IO pad and a control device; and

25      computer code for separating the IO pad from a capacitive path as a function of the current between the IO pad and the control device.

29. The system of Claim 3, wherein the fuse is blown by a laser.

30. The system of Claim 13, wherein the first circuit has ceased to conduct due to a signal generated by the third circuit, but the second circuit has not ceased to conduct.